

REMARKS/ARGUMENTS

In response to the Office Action mailed November 12, 2008, Applicant amends his application and requests reconsideration. In this Amendment claim 2 is cancelled and claim 20 is added, so that claims 1 and 3-20 are now pending.

The claims pending in this application are based on the claims submitted November 14, 2008 in a document entitled Response to Second Notice of Non-Compliant Amendment. As previously explained, since the contact, intermediate, and cladding layers are different in composition, their bandgap energies are different, resulting in bandgap energy discontinuities at the two interfaces of the three layers.. Only claims 1-6 were examined in this patent application because of the instruction to examiners not to examine claims that are multiply dependent from multiply dependent claims. It was intended, in the Preliminary Amendment, to eliminate all multiple dependencies but the correction was not properly made. The claims presented here represent the claims that would have been pending if all multiple dependencies had been eliminated by rewriting all of the claims that corresponded to the multiple dependent claims. Claim 20 is added and is based upon the dependency of claim 8 from claim 7. No claim accounting for the second dependency of claim 8 had previously been filed.

In this Amendment the sole pending independent claim, claim 1, is amended in two ways. In the first of the amendments to claim 1, the conveyance path is described more specifically, consistent with the description in paragraph [0020] of the patent application as filed. That paragraph begins on page 9 and continues to page 10 of the patent application. As pointed out there, the conveyance path is defined by two separated plates, an upper conveyance guide plate 4 and a lower conveyance guide plate 5. These plates in the described embodiment are shown in Figure 1 of patent application. The upper guide plate 4 includes an aperture 4a that admits the light from the sensor unit 7 so that the light reaches the object, e.g., banknote, while being conveyed in the conveyance path between the upper and lower conveyance guide plates. Of course, the light reflected from the object, or generated from the object, in the case of fluorescence

or another response at a shifted wavelength, reaches the sensor unit 7 for detection as described in the patent application. See the description at paragraph [0022] of the patent application as filed.

In the other amendment of claim 1, the limitation of claim 2 is incorporated into claim 1, further explaining the discrimination processing portion. In addition, the limitation of former claim 2 is modified by stating that the illumination of the object occurs while the object is in the conveyance path, consistent with the description of the patent application, as described in the preceding paragraphs.


In amended claim 1, the conveyance path is defined as having a thickness, i.e., a space between the upper and lower conveyance guide plates, in a range from about 2 to about 3 mm. When banknotes, as the objects, are conveyed in the conveyance path, their natural flexibility can be a source of difficulty. These paper items may flutter as they move through the conveyance path, causing the reflection of incident light or the light that is generated in response to incident light to be directed away from the light-receiving and detecting element. However, the inventor has determined that by limiting the clearance between the upper and lower conveyance guide plates to the specified range, fluttering of the banknotes is suppressed. Of course, the suppression of this fluttering improves the accuracy of the inspection device in discriminating between the denominations of banknotes and discriminating genuine banknotes from counterfeit banknotes. Further, because of the reduced fluttering, even if the quantity of light detected by the light-receiving and detecting elements changes overall, there is little variation in the output ratio of signals produced by adjacent light-receiving and detecting elements. Therefore, the efficiency and accuracy of the claimed inspection device is improved.

Claims 1 and 3-5 were rejected as anticipated by Uemura et al. (Published U.S. Patent Application 2003/0197866, hereinafter Uemura). Claim 2 was rejected as obvious over Uemura. In view of the combination of claims 1 and 2, only the latter rejection is still potentially applicable. That rejection is respectfully traversed as to all claims now pending and under examination, namely claims 1 and 3-20.

Uemura is directed to measuring the properties of sheets of paper using light sources and light detectors. Uemura, while relevant prior art, includes no disclosure concerning any particular mechanical structure of a conveyance path. Therefore, Uemura cannot suggest claim 1, nor any other pending claim, because there is no description of the conveyance path, the existence of guide plates defining the conveyance path, nor the separation between guide plates defining the conveyance path. Thus, there is no possibility of Uemura suggesting any claim now pending.

Accordingly, upon reconsideration, the rejection of the examined claims should be withdrawn, examination of claims 6-20 should be confirmed, and a Notice of Allowance of claims 1 and 3-20 should be issued.

Respectfully submitted,



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